

Clean Cities 2011 EV Community Readiness

Northeast Regional Electric Vehicle Network Planning Project

Awarded to: New York State Energy Research and Development Authority
PI: Adam Ruder, NYSERDA

NYC Electric Vehicle Readiness Project: Unlocking Urban Demand

Awarded to: New York City and Lower Hudson Valley Clean Cities Coalition
PI: Christina Ficicchia, Empire Clean Cities (formerly NYCLHVCC)

Mike Scarpino
U.S. Department of Energy
National Energy Technology Laboratory

May 15, 2013

This presentation does not contain any proprietary,
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Project ID: TI028



New York State Energy Research and
Development Authority (NYSERDA)

PI: Adam Ruder
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- **TIMELINE**

- Start: October 2011
- End: June 2013
- 95% Complete

- **BUDGET**

- Total Project Funding:
\$1,494,500
 - DOE: \$994,500
 - Cost Share: \$500,000
- Funded w/ FY11 & FY12 funds
- **\$762,913 spent (77%)**
(as of 3/15/13)

- **BARRIERS ADDRESSED**

- Availability of Alternative Fuel Vehicles & Electric Drive Vehicles
- Availability of Alternative Fuels and Electric Charging Infrastructure
- Consumer Reluctance to Purchase New Technologies
- Lack of Technical Experience with New Fuels and Vehicle Technologies

- **PARTNERS**

- NYSERDA
- Transportation and Climate Initiative
- Georgetown Climate Center
- State Governments/ Agencies
- Local Governments/ Organizations
- 16 Northeast & Mid-Atlantic Clean Cities Coalitions
- NASEO



Objectives:

- The Northeast Regional Electric Vehicle Network Planning Project will develop a plan and accompanying guidance documents to accelerate the introduction of a network of electric vehicle charging stations throughout the Northeast and Mid-Atlantic regions.
- The project will be led by NYSERDA on behalf of the Transportation and Climate Initiative, a collaboration of state energy, environment, and transportation agencies in the 11 Northeast & Mid-Atlantic states and Washington, DC
- Work with the region's Clean Cities Coalitions to bring together stakeholders to inform the process, adapt the documents to local audiences, and convey the benefits of a regional approach to local policymakers.
- Coordinate region-wide stakeholder outreach, conduct necessary research, and recommend model policy and planning approaches.
- Develop a full suite of planning documents, including siting and design guidelines, model building code amendments, model permitting rules, model zoning ordinances, and education and outreach materials.

Project Supports VTP Deployment Goals:

- By 2020, to achieve a petroleum reduction of over 2.5 billion gallons per year through voluntary adoption of alternative fuel vehicles and infrastructure.
- To ease market introduction of alternative fuels and new electric drive vehicle technologies through voluntary efforts in partnership with local communities
- To provide technical and educational assistance to support local communities and partnerships that promote better understanding of the benefits of these new technologies.

Task 1: Project Management and Administration

- Manage the cost, schedule and scope of the project and provide status and progress to the Department of Energy in accordance with the deliverables section of this document.

Task 2: Establish a Stakeholder Advisory Group

- Engage national, regional, and local stakeholders to create a stakeholder advisory group that will provide direction and feedback on what issues the planning process should address and how the agencies can be of most assistance in helping to improve conditions for EV and EVSE deployment.

Task 3: Conduct Literature Review

- Conduct a literature review of the existing state and national analyses of issues facing EV deployment, with a focus on market barriers, electric grid impacts, and economic, health, and environmental impacts of EV.

Task 4: Create Region-Wide Siting and Design Guidelines

- Draft a set of region-wide siting and design guidelines based on data collected from employers, housing authorities, Department of Motor Vehicles (DMVs), and other sources.

Task 5: Model Building Codes, Permitting, and Zoning

- Draft recommended model building codes, permitting rules, and zoning and parking ordinances that simplify EVSE deployment.

Task 6: Education, Coordination, and Communication

- Design and implement an education and communication plan and work to generalize the materials created in the above tasks to be relevant in the rest of the country.

Task 7: Regional Electric Vehicle Infrastructure Readiness Plan

- Activities in this task include drafting and completion of the final plan; submission of plan draft to project partners and stakeholders for review and comment; revision of draft plan according to stakeholder input and feedback as necessary; report of final plan to DOE.

- **Year 1**

- Stakeholder Advisory Group formed, December 2011
- Initial Stakeholder Outreach for feedback and information
 - Information from states, stakeholders, Clean Cities Coalitions
- Completion of Literature Review, April 2012
- Data gathering for work products completed, June 2012
- Feedback on draft reports, October 2012
 - Comments from states, stakeholders, Clean Cities Coalitions
- Planning for outreach to promote work products, September 2012

- **Year 2**

- Final guidance documents completed, November 2012
- Completion of outreach events for stakeholders, February 2013
- Completion of toolkit for other states to follow, March 2013
- Presentation to other award recipients, May 2013

TECHNICAL ACCOMPLISHMENTS

NYSERDA: Clean Cities 2011 EV Community Readiness



Deliverables Completed:

- Stakeholder advisory group created and engaged
- Literature review, guides completed and disseminated
- Stakeholder outreach to public, fleets, employers, retailers, governments, utilities, MPOs
- College courses on EVs in the region inventoried

Guides Developed and Distributed:

- Site Design for Electric Vehicle Charging Stations
- Assessment of Current Electric Vehicle Supply Equipment and EV Deployment
- Electric Vehicle Supply Equipment Cluster Analysis
- Electric Vehicle Siting and Design Guidelines
- EV-Ready Codes for the Built Environment
- Creating EV-Ready Towns and Cities: A Guide to Planning and Policy Tools
- Plug-In Electric Vehicle Deployment in the Northeast: A Market Overview and Literature Review
- Brochure: Learn About Electric Vehicles and Their Use in the Northeastern United States

- Project partners have engaged stakeholders at the local and regional level to assess barriers, discuss a vision for EV deployment in the region, and educate about the guides developed in this project
 - Clean Cities Coalitions have worked with local stakeholders to assess the state of EVs in their jurisdictions and have held over 100 meetings to educate stakeholders about the documents developed
 - TCI has held regional dialogues with public and private sector stakeholders.

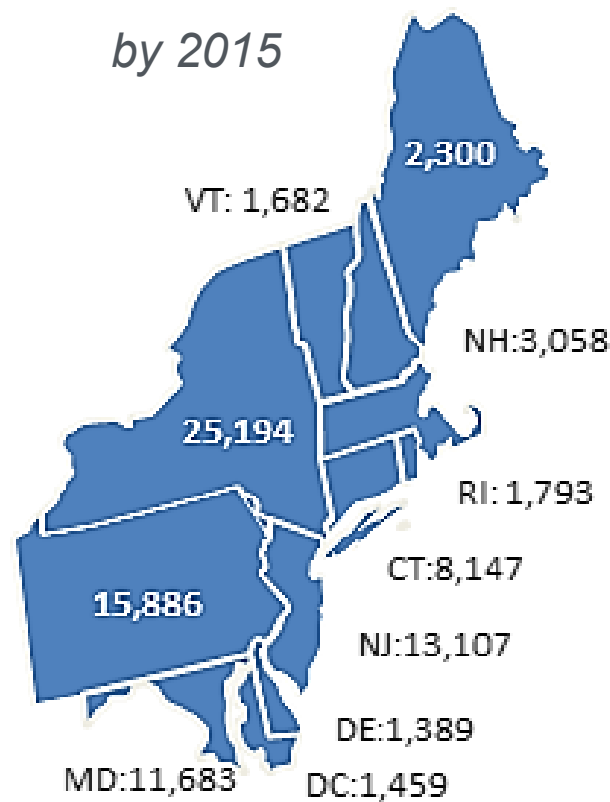


- Assessment of market barriers, electrical grid impacts, plans for EV rollouts specific to the Northeast
- Estimates of EVs on road in future
- Economic and environmental analysis of EV value proposition

Figure 14: Payback Period for EV Premium in New York City, Boston, and Philadelphia (Columbia University, 2010)

New York City – Flat Rate \$0.27/kWh			Comparison to Hybrid Vehicle: EV Premium: \$3,330		Comparison to Conventional Vehicle: EV Premium: \$6,560	
Electricity Price	Cost per Gallon Gasoline	Miles Driven per Day	Cost Savings per Year	Payback Period (Years)	Cost Savings per Year	Payback Period (Years)
\$0.27	\$3.50	40	\$255.18	13.05	\$1,567.15	4.19
\$0.135	\$3.50	40	\$728.22	4.57	\$2,040.19	3.22
\$0.0675	\$3.50	40	\$964.74	3.45	\$2,276.71	2.88
\$0.27	\$4.00	40	\$398.32	8.36	\$1,898.97	3.45
\$0.135	\$4.00	40	\$871.36	3.82	\$2,372.01	2.77
\$0.0675	\$4.00	40	\$1,107.88	3.01	\$2,608.53	2.51
\$0.27	\$2.50	40	(\$31.09)	N/A	\$903.51	7.26
\$0.135	\$2.50	40	\$441.95	7.53	\$1,376.55	4.77
\$0.0675	\$2.50	40	\$678.47	4.91	\$1,613.07	4.07
\$0.135	\$3.50	20	\$463.76	7.18	\$1,115.34	5.88
\$0.135	\$3.50	40	\$728.22	4.57	\$2,040.19	3.22
\$0.135	\$3.50	80	\$1,257.14	2.65	\$3,889.87	1.69

Estimated EVs on the Road by 2015

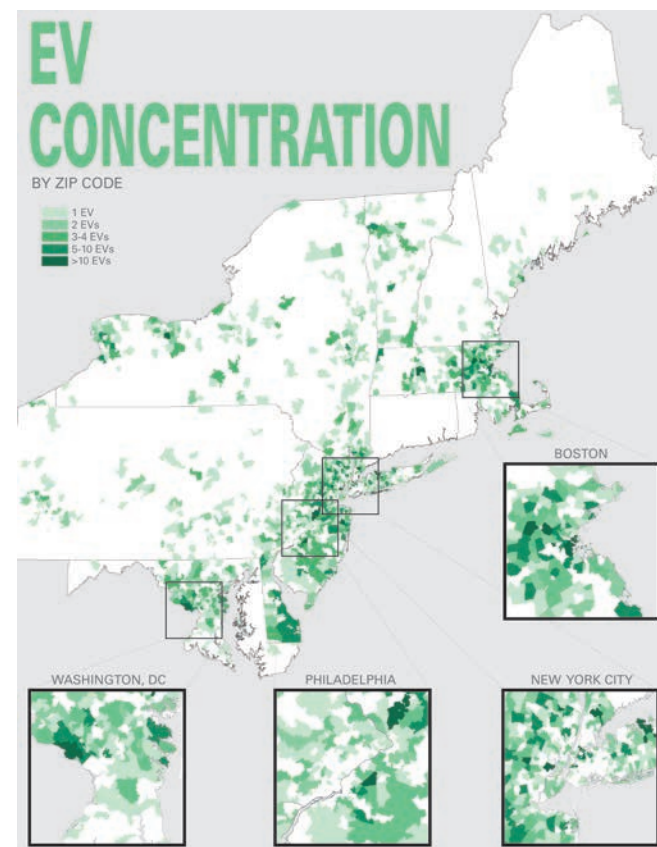
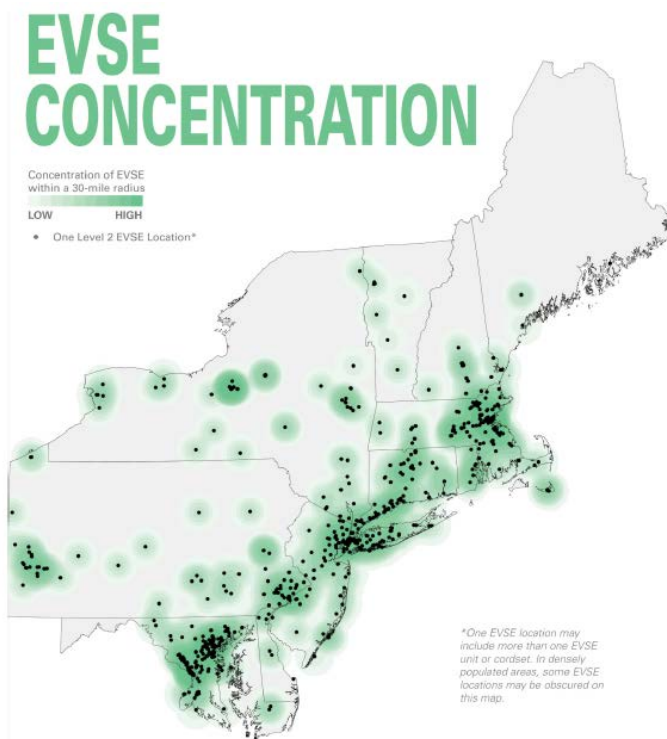


TECHNICAL ACCOMPLISHMENTS (cont.)

Assessment of Current EV and EVSE Deployment



- Highlights trends in EV ownership and charging station locations
- Assesses demographics and other characteristics of communities high in EV ownership
- Offers recommendations for further areas of study



TECHNICAL ACCOMPLISHMENTS (cont.)

EVSE Cluster Analysis



- Nine land use “clusters” that are strong areas of current and potential EVSE deployment
- Chosen based on user behavior, operations, geography, demographics, and economic viability
- Case studies of model installations in each cluster type

EVSE CLUSTER SUMMARY MATRIX

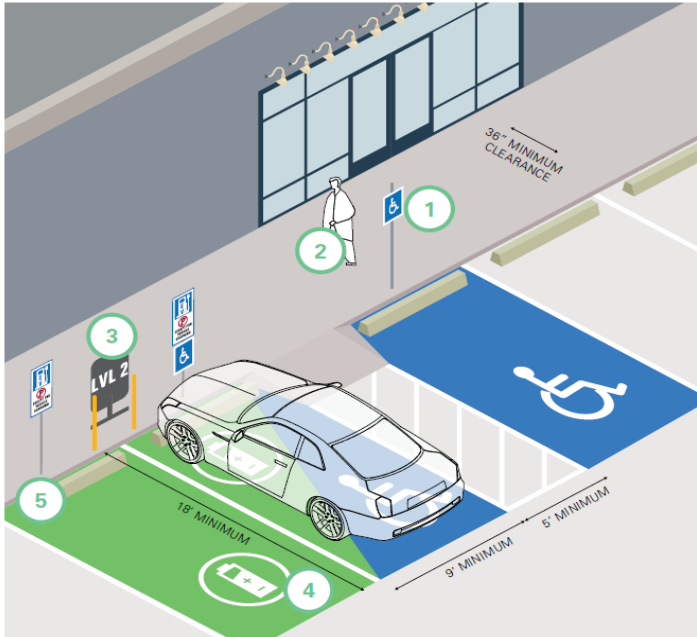
	Downtown	Retail	Workplace	Higher Education	Fleet	Leisure	Regional Transit	Medical Campus	Multi-Family
USER BEHAVIOR									
Density of Use (Volume)	●	●	●		○	●	●		●
Intensity of Use (Thru-put)	●	●	○		○	○	○		
Vehicle Miles Traveled		○	●		●	●	●		
Dwell Time	○	●	●		○	●	○		
Diversity of Experience	○	●			○	●			
CLUSTER OPERATIONS									
Procurement	●		○	○	●		○	○	
Internal Interests	○	○	●	●	○	○		●	●
Parking Management	○	○	●	○		○	○	○	○
Location Ownership	●	●	○	○		○	○	○	○
EXTERNAL FACTORS									
User Demographics		●	●	●		●	○	●	●
Geography	○	○	○	●	●	○	○	○	○
Electricity Cost	●	●	●		○				●
Fuel Cost	○				○				
Regulatory Ease: Permitting, Zoning	●	○	○	○	○		○		○
Plans and Policy	●			○	●		●	○	○
HOST/PUBLIC BENEFIT AND VALUE CAPTURE									
Public Health	○				●			○	
Marketing Opportunity	○	●	○	●	○	●	○	○	○
Sustainability Goals	●	○	●	●	○	○	●	○	○
Economic Development	●	○	○	○	○	○		●	○

○ LOW relevance
○ MEDIUM relevance
● HIGH relevance

Medical Campus	Downtown
Higher Education	Commercial Office
Retail	Multi-Family
Leisure Destination	Regional Transportation
Fleet and Freight	

TECHNICAL ACCOMPLISHMENTS (cont.)

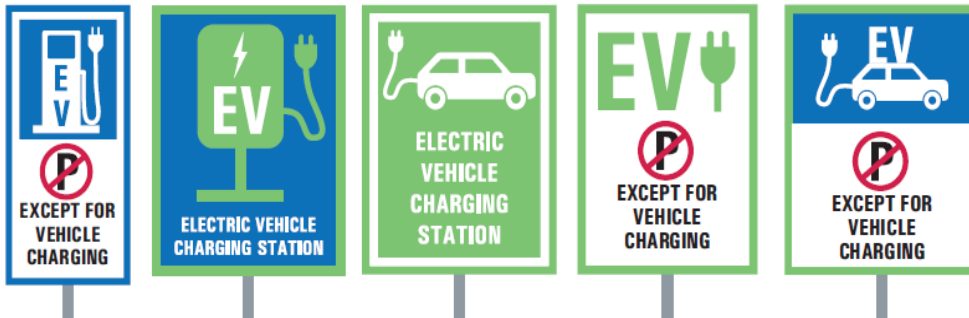
Siting and Design Guidelines



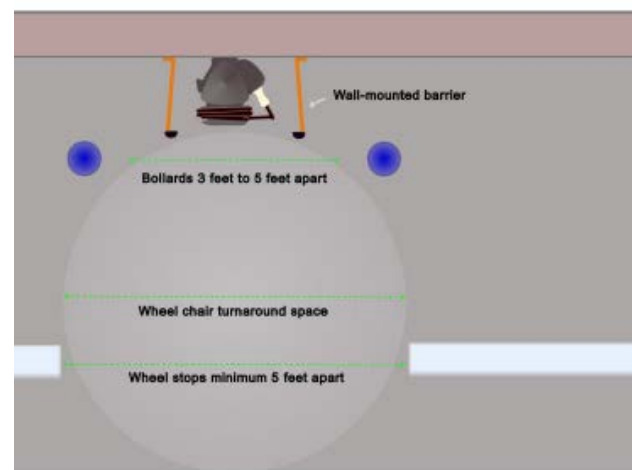
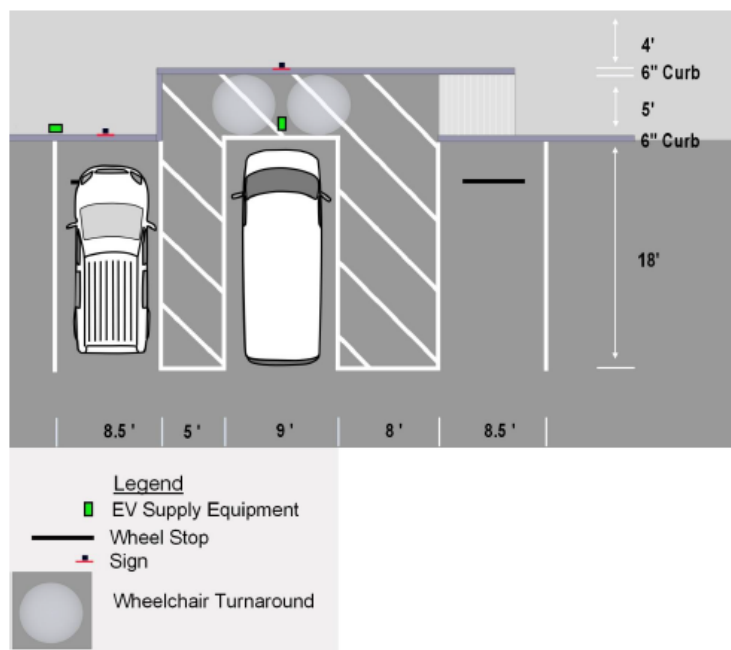
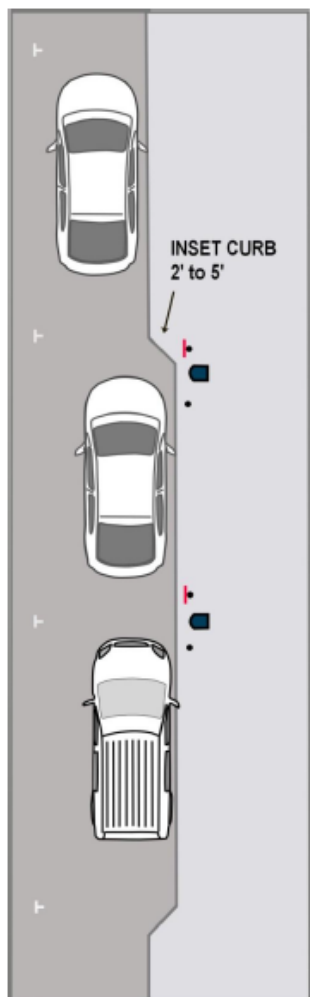
- Siting and design recommendations at the micro level
- Serves as guide is for installers involved in EVSE deployment
- Provides an overview of elements of site selection and design and installation scenarios



Commercial Lot

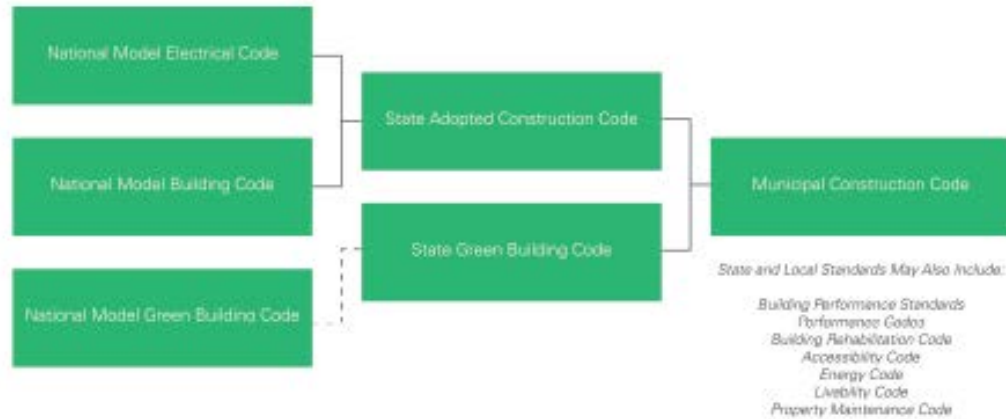


- Detailed discussion of EVSE installation scenarios with schematics for actual parking area design
- Special attention to ADA compliance
- Addresses a wide variety of installation settings, including parking structures, on-street parking, and surface lots, and ancillary concerns such as electric infrastructure, lighting, and communications infrastructure



Barriers can be designed to provide turnaround space for wheel chairs

EV-Ready Codes for the Built Environment



- | Total Number of
Parking Spaces | Number of Required
Spaces |
|---|--------------------------------------|
| 0-9 | 0 |
| 10-25 | 2 |
| 26-50 | 4 |
| 51-75 | 6 |
| 76-100 | 9 |
| 101-150 | 11 |
| 151-200 | 18 |
| 201 and over | At least 10% of total |

Clean Cities 2011 Community Readiness & Planning for PEVs & Charging Infrastructure / 15

TECHNICAL ACCOMPLISHMENTS (cont.)

Guide to Planning and Policy Tools



Table 1: EV Planning and Policy Tool Summary

ZONING	Determines where and how EVSE is allowed, incentivized or required <ul style="list-style-type: none">• Zoning establishes allowable uses through the municipal zoning code• Zoning can consider the deployment of EVSE within the larger context of planning and land use• Incentive zoning, such as the exchange of development bonuses for the inclusion of EVSE pre-wiring or infrastructure in new development, is a potential area for EVSE deployment, but it remains largely untested• By setting development standards through zoning ordinances, municipalities can use this tool to shape the scope (how many and where) of EVSE deployment
PARKING	Sets the scope and enforcement requirements for parking with state or local laws <ul style="list-style-type: none">• Parking ordinances apply to publicly accessible EVSE, including on-street parking and municipal lots and garages, and are therefore an important part of infrastructure development• Similar to zoning, parking ordinances provide a way to require a certain number or percentage of spaces and to restrict the use of charging stalls to EVs• Because parking ordinances apply to the public realm, parking tools can be effective in encouraging EVSE in a wide range of installation scenarios, including public and private space as well as new and existing construction• Opportunities exist for private parking management• Opportunities exist for developing EV parking incentives, such as preferred parking, which may encourage EV purchases
CODES	Ensure safe EVSE installations and specify the scope of EVSE-ready construction <ul style="list-style-type: none">• Changes to the building and electrical codes are not necessary from a safety standpoint, but codes can help make places EV-ready• State and local codes may need to change to meet certain requirements, such as emissions reduction goals. This is an ideal opportunity to incorporate EVSE• Municipalities that are able to adopt their own codes benefit from a highly flexible state code—one that provides different standards for different situations• Building and electrical codes present different EV-ready opportunities
PERMITTING AND INSPECTION	Streamlines the administrative process so that it is uncomplicated, fast and affordable <ul style="list-style-type: none">• Updating and streamlining permitting eases implementation of EVSE and reduces fees to the consumer as well as costs to the municipality over the long term• Permitting is a local administrative process. As a result, the process varies across the TCI region, as evidenced by wide variations in permit fees• While the prime inspection venue is provided by cities and state offices, third-party inspection firms offer opportunities for partnership and inspector training throughout the TCI region
PARTNERSHIP AND PROCUREMENT	Works closely with private or quasi-public partners to implement infrastructure in the public realm <ul style="list-style-type: none">• Partnerships include working groups, which can unite government agencies with private industry and experts• Regional planning organizations such as MPOs and COGs are important for building consensus and getting the word out• Local U.S. Department of Energy Clean Cities chapters can offer additional funding and information on EVs• Governments can procure EVs for municipal and state fleets to increase awareness and meet sustainability goals• The role of the private sector can be just as, if not more, important in preparing the region for more comprehensive EVSE deployment

- Guidance for all levels of state and local governments wishing to facilitate EVSE deployment in their jurisdictions.
- Provides discussion and guidance about the steps to create, administer, and amend planning processes, rules, and regulations
- Explores the potential for jurisdictions to encourage EV charging station installation and use
- Examines best practices and case studies for promoting EV-friendly zoning regulations, parking ordinances, building codes, permitting practices, and partnership and procurement policies
- Offers model language for governments to adopt

TECHNICAL ACCOMPLISHMENTS (cont.)

The Future Is Now: Electric Vehicles Brochure



The future is now

Learn about the benefits of electric vehicles and their use in the northeastern United States

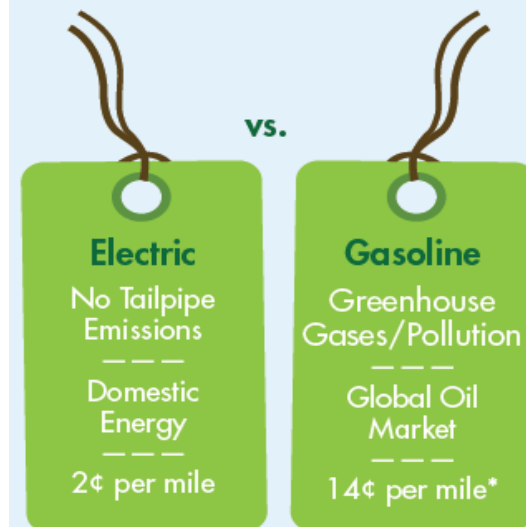
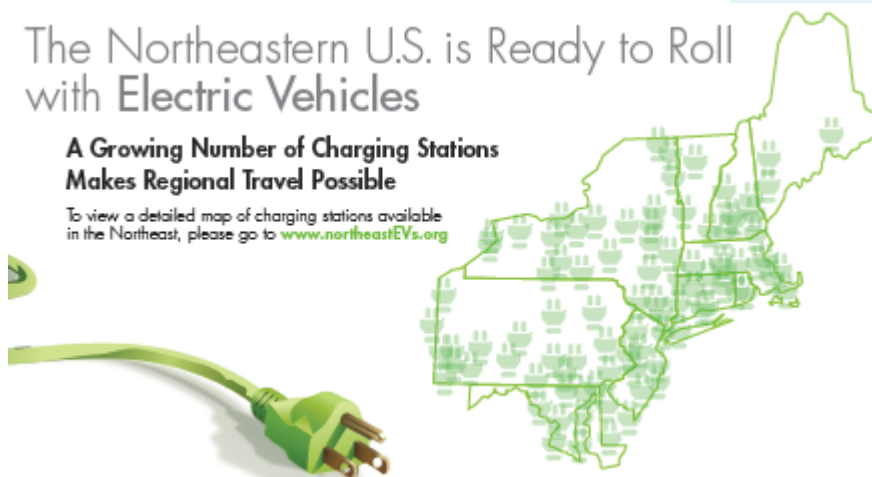


- Public-facing brochure explaining basics of EVs and key EV activities in the Northeast
- Special inserts for other target audiences: employers, local government, utilities, and multi-unit residential dwellings
- Distributed broadly at Clean Cities events across the region

The Northeastern U.S. is Ready to Roll with Electric Vehicles

A Growing Number of Charging Stations Makes Regional Travel Possible

To view a detailed map of charging stations available in the Northeast, please go to www.northeastEVs.org



EV drivers can save nearly \$13,000 in fuel costs over the life of the vehicle.*

- **Transportation and Climate Initiative: State Energy, Environment, and Transportation Offices**
 - Connecticut
 - Delaware
 - Maryland
 - Massachusetts
 - New Hampshire
 - New Jersey
 - New York
 - Pennsylvania
 - Rhode Island
 - Vermont
 - Washington, DC
- **Private Sector Partners**
 - Georgetown Climate Center
 - Energetics, Inc.
 - C2ES
 - NASEO
 - WXY Architecture + Design
 - Sustainable Transportation Strategies
 - Logios
- **Clean Cities Coalitions**
 - Maine
 - Granite State (NH)
 - Massachusetts
 - Ocean State (RI)
 - Vermont
 - Capital District (Albany NY)
 - Western NY (Buffalo)
 - Genesee Region (Rochester)
 - Central NY (Syracuse)
 - Greater Long Island
 - New York City/Lower Hudson Valley
 - New Jersey
 - Philadelphia
 - Delaware
 - Maryland
 - Greater Washington (DC)

PROPOSED FUTURE WORK

NYSERDA: Clean Cities 2011 EV Community Readiness



- Partners are doing EVSE installations across the region based on the guidelines developed under this project
- TCI will work with its Northeast EV Network partners to advance the spread of EVs in the Northeast
- NYSERDA is continuing to work with communities in NYS to amend zoning, permitting, and building code rules to advance EV deployment
- Clean Cities Coalitions are continuing their outreach to stakeholders using the materials developed in this project
- Other states will continue to press for adoption of better local rules and regulations for EV infrastructure

- The Transportation and Climate Initiative has completed a wide range of guidance documents and stakeholder outreach and education to advance EV deployment across the Northeast and Mid-Atlantic states
- Best practices and guidelines documents are relevant to both the public and private sectors in this region and, often, nationwide
- Stakeholder outreach and engagement will continue even past the end of the grant period
- The partnerships formed under this project will continue to push for adoption of these best practices in the region and will look for new ways to work together on tackling additional challenges to EV deployment
- EV and EVSE deployment is continuing rapidly in the region and the guidance documents will play a major role in shaping future deployment efforts

A horizontal banner with a dark blue background containing various logos and text. From left to right: a white banner with the word "PURPOSE" in blue; the Beam logo in a black oval; the conEdison logo in blue; the official seal of the City of New York; the text "THE CITY OF NEW YORK OFFICE OF THE MAYOR NEW YORK, NY 10007"; the New York City logo with green horizontal lines; a bulleted list of partners: Philadelphia, Boston, Open Plans, and CRC Media; and the Empire Clean Cities logo featuring a grey silhouette of the Empire State Building.

New York City and Lower Hudson Valley Clean Cities
(currently Empire Clean Cities)

PI: Christina Ficicchia
christina@empirecleancities.org

- **TIMELINE**

- Start: October 2011
- End: June 2013
- 100% Complete

- **BUDGET**

- Total Project Funding:
\$567,336
 - DOE: \$418,612
 - Cost Share: \$148,724
- Funded w/ FY11 & FY12 funds
- **\$418,612 spent (100%)**

- **BARRIERS ADDRESSED**

- Availability of Alternative Fuel Vehicles & Electric Drive Vehicles
- Availability of Alternative Fuels and Electric Charging Infrastructure
- Consumer Reluctance to Purchase New Technologies
- Lack of Technical Experience with New Fuels and Vehicle Technologies

- **PARTNERS**

- NYCLHVCC
- New York City Mayor's Office
- New York City Depart. of Transportation
- Local Utility, ConEdison
- Vehicle and EVSE OEMs
- City of Boston & Philadelphia

Objectives: The objective of the “NYC EV Readiness Project” is to regionally identify barriers and develop solutions to plug-in EVs operating in and around New York City, Boston and Philadelphia corridor through the NE.

Specific Barriers include: 1) Increasing Public Awareness through outreach, 2) Increasing Access to Charging, and 3) Improving Vehicle Economics

- Address infrastructure deployment plans for LD vehicles w/ a focus on parking lots and connection between major destination hubs.
- Develop an EV deployment strategy that looks at traffic management and logistics, grid connectivity, economic impact, and transportation zoning regulation with commercial/consumer choice.
- Develop a planning document that addresses all variables and key decision points towards the widespread adoption of EVs as a viable means of transportation in and around NYC,
- Create an online tool with a social media component to serve as a regional strategy for EV adoption throughout urban centers.

Project Supports VTP Deployment Goals:

- By 2020, to achieve a petroleum reduction of over 2.5 billion gallons per year through voluntary adoption of alternative fuel vehicles and infrastructure.
- To ease market introduction of alternative fuels and new electric drive vehicle technologies through voluntary efforts in partnership with local communities
- To provide technical and educational assistance to support local communities and partnerships that promote better understanding of the benefits of these new technologies.

Task 1: Project Management and Administration

- Manage the cost, schedule and scope of the project and provide status and progress to the Department of Energy in accordance with the deliverables section of this document.

Task 2: Data Collection & Analysis of EV Integration Within Car-share Programs

- Determine economic and environmental benefits of integrating EVs into City car-share programs.

Task 3: Data Collection & Analysis of Charging and EV Fast-charging Potential

- Analyze: (1) Fast Chargers for Taxis, (2) demand charges related to fast charging financials from a utility and consumer perspective, and (3) specific locations and sites for fast charging.

Task 4: Training Development & Delivery

- Develop training materials for parking garage attendants, and perform training sessions to parking garage operator attendants at parking garage sites within the five boroughs of NYC.

Task 5: Development & Implementation of Education & Outreach Strategies

- Create a source of EV information for consumers and businesses, implement social engagement strategy, increase awareness of EVs to consumers, analyze and evaluate potential incentives to incentivize EV deployment.

Task 6: Website and Social Engagement Strategy

- Manage and implement the creation of a regional website and social engagement strategy

Task 7: Development of an EV Readiness Strategy

- Create draft EV friendly building codes languages, improve Time of Use (ToU) Pricing Availability for EVs and analyze value of tax abatements/credits. Integrate EV info into NYC's online or phone based 311 system. Convene Con-Edison and PSC to create a pilot program for Time of Use EV Metering. Studying commercial electric vehicles and how those batteries could be harnessed for second life usage to improve the overall economics of electric vehicles.

Task 8: Completion of Final Plan

- Activities in this task include drafting and completion of the final plan; submission of plan draft to project partners and stakeholders for review and comment; revision of draft plan according to stakeholder input and feedback as necessary; report of final plan to DOE.

- **Year 1**

- Empire Clean Cities worked with Beam Charging to develop a map of public parking garages with Level II fast Charging, and created an EV charging manual for parking garage attendants.
- Con-Edison worked with the NYC Mayor's Office to look at the relationship of a 2nd meter or sub-metering and demand charges related to fast-charging
- The NYC Mayor's Office worked with NYC DOT to understand the feasibility of EVs in the city's car-share program
- Purpose Campaigns, LLC and Open Plans developed an interactive website, MissionElectric.org and deployed a number of crowd-sourced outreach campaigns that promoted EVs being deployed in NYC area fleets, Duane Reade and Hertz Connect.
- Empire Clean Cities performed a number of outreach events under the Mission Electric brand to promote EVs to consumers

- **Year 2**

- NYC Mayor's Office compiled data and information to complete the final NYCEV Readiness Planning document.
- Presentation to other award recipients, May 2013

TECHNICAL ACCOMPLISHMENTS

NYCLHVCC: Clean Cities 2011 EV Community Readiness



1) EV CarShare: A Good Operational Match.

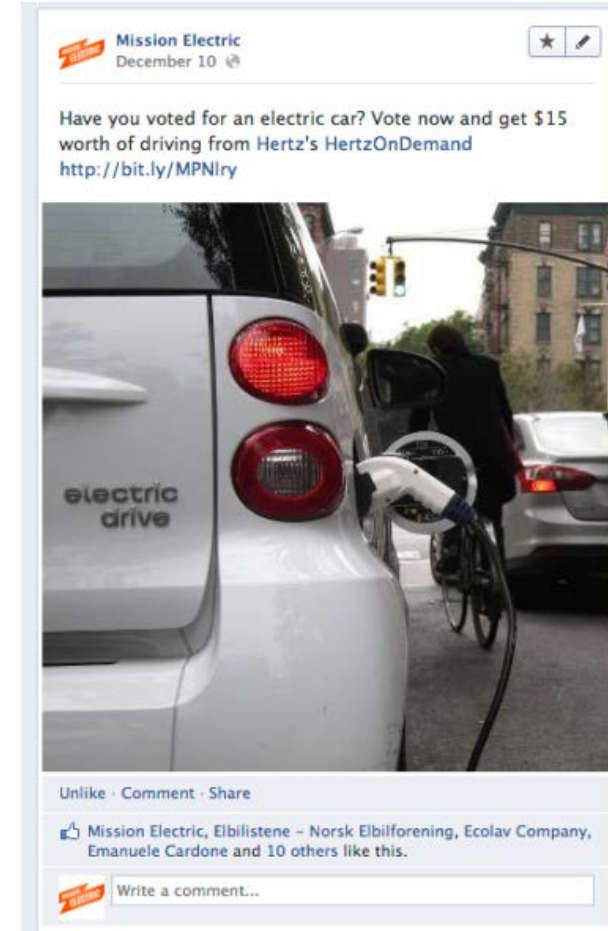
- NYC Mayor's office used NYC DOT usage data from the 1st quarter 2010 of their car share pilot and created a tool to simulate EV usage for the same type of car-share scenario.
- This per-trip analysis showed that 98% of all individual trips would fit within the electric range of a Nissan Leaf®.
- In addition, the analysis showed that there would be only 1% of the 580 trips analyzed would pose an insufficient state of charge for the following user during DOT operational hours.

2) ToU EV Metering: Removing barriers to allow for reduced costs.

- NYC Mayor's office worked with the NYC DOB to amend building codes
- Codes were removed that prevented customers from installing a 2nd meter that would allow Con-Edison customers to take advantage of ToU rates
- ConEd pilot program is investigating cost-effective sub-metering to allow customers to take advantage of benefits w/o a 2nd meter, reducing costs.

3) V-to-G/V-to-B: Not Viable at this time.

- Due to the immaturity of the technology coupled with the high- usage of City vehicles overlapping with peak demand time intervals during the day, the value of the savings may not be substantial enough for further demonstration at this time.



4) EV Building Codes

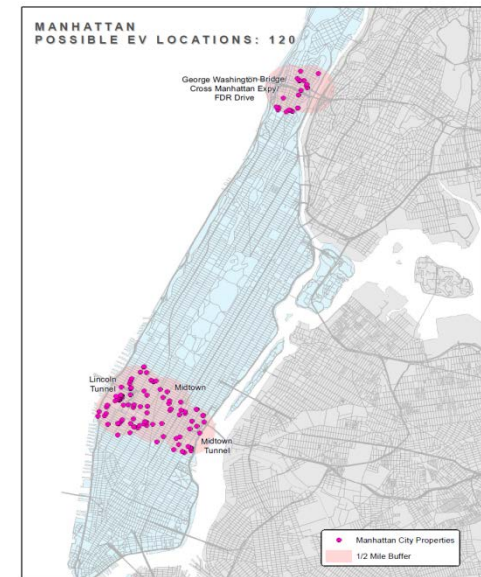
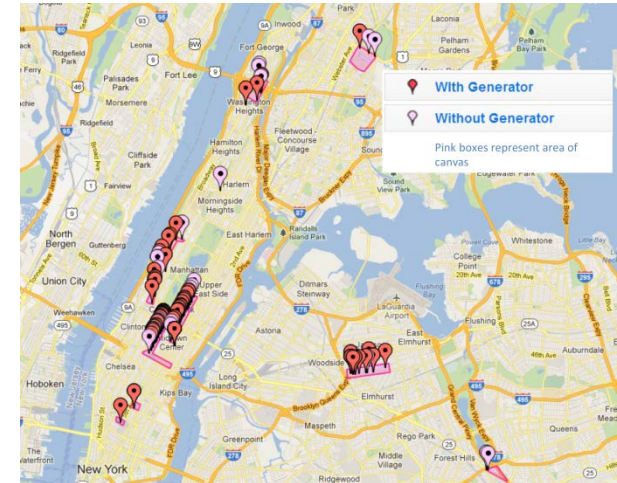
- After a review of London and Vancouver's building codes requiring 20% of new residential parking spots to be "EV Ready," NYC Mayor's office looked at incorporating green building codes into its Green Code Task Force process.
- Since the NYC EV Readiness Plan was finalized, the NYC's Mayor Bloomberg announced that the City is committed to ensuring that 2,000 of the 10,000 new parking spots will be EV Read by 2020.

5) Curbside Charging in NYC – “2 birds with 1 stone”

- By looking at providing electricity to food trucks, NYC Mayor's office hopes to help reduce overall emissions created by food trucks and also lay the groundwork for EV-Ready curb-side infrastructure

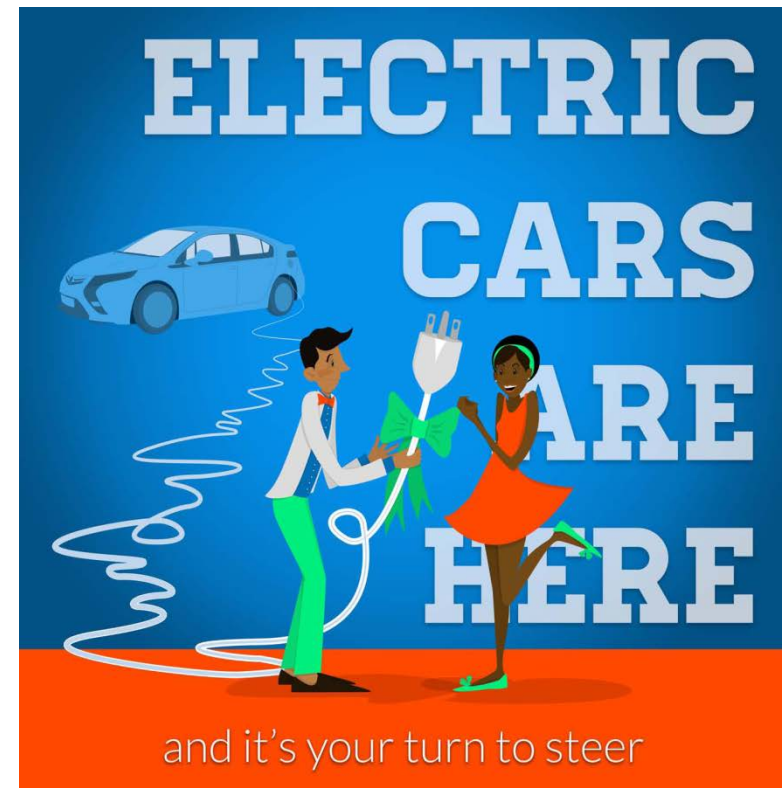
6) Fast Charging

- NYC Mayor's office worked with the local utility, Con-Edison, and Nissan to identify 3 DC fast-charging site's that could be used for the EV Taxi pilot program.
- To date- 2 of the 3 site's have been identified and one DC fast-charger is already installed.



7) MissionElectric.org

- Created as a platform to educate consumer's on the benefits of EVs specifically in fleet applications.
- Many of the targeted urban consumer will not be interested in purchasing their own vehicle and therefore EV, however may be inclined to purchase products delivered by EV trucks, hail an EV taxi, or participate in a car-share program that include's EVs in their fleet.
- Duplicate and share MissionElectric.org as a resource for public-private partnerships that can benefit from crowd-sourced data-sharing, as well as act as a platform for EV promotion that is agnostic of any specific EV technology.



vote at MISSIONELECTRIC.ORG 



MISSION ELECTRIC

MISSIONELECTRIC.ORG

GO VOTE TODAY!!!

Funded by US
Dept of Energy

NYC BOS PHIL

ABOUT | BASIC TRAINING | MISSIONS | BLOG



DRIVE YOUR CITY ELECTRIC

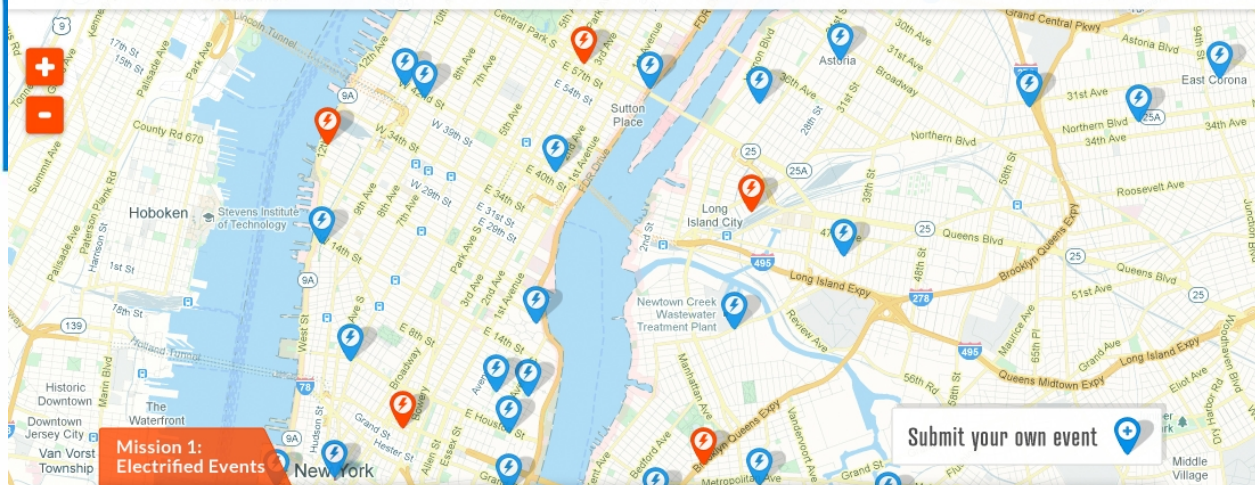
Mission Electric empowers you to pave the way for electric vehicles, and for a future of clean and efficient transportation in your city.

Like 86k Tweet 93

Join our email list for mission updates!

Your email address

JOIN



Mission 1:
Electrified Events

Vote for the local events you want to see electrified!

Mission Electric events User-submitted events



Your Mission: ELECTRIFIED EVENTS

Mission Electric wants to give New Yorkers a firsthand experience with electric vehicles. We're electrifying local events by bringing EV drivers and other clean transportation experts to show you their stuff at events in the city. By completing this mission, you'll give fellow New Yorkers the opportunity to experience EVs, and yourself the opportunity win a [insert incentive, see below]!

How does this mission work?



VOTE
for an event



REGISTER
your vote



SHARE
with friends



WIN
a prize



ELECTRIFY
an event

Recent Votes

798 actions / 12 days to go

[Agent Name] just voted
for the Mermaid Parade

[Agent Name] just added
Name of Event Here

[Agent Name] just voted
for the Mermaid Parade

[Agent Name] just added
Name of Event Here

[Agent Name] just voted
for the Mermaid Parade

Contact us: NYC@missionelectric.org | Privacy Policy | FAQ

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NYC Mayor's Office of Operations

NEW YORK CITY DOT

U.S. DEPARTMENT OF ENERGY

Clean Cities

THE CITY OF PHILADELPHIA MAYOR'S OFFICE OF SUSTAINABILITY



OpenPlans

DUANE Reade's Smith EV at Plug-In Day in Times Square



8) Parking Garage Attendant Training:

- Public parking garages, where the majority of NYers park for at least part of the time whether it be temporarily or on a monthly basis.

- Under the grant, NYCLHVCC worked with Beam Charging, LLC to survey these garages, create a map of Level II EVSEs and create a manual for attendants who would be the most likely individuals that would interface with the EVSE.

- Approximately 50 Garage Operator trainings were held, educating over 100 attendants.

US DOE Clean Cities Community Readiness and Planning for Plug-in Electric Vehicles and Charging Infrastructure".

DE-FOA-0000451.

"NYC Electric Vehicle Readiness Project: Unlocking Urban Demand"

EVSE Garage Charging Training Manual:

Created by:

Beam Charging

- Clean Cities Coalitions
 - Empire Clean Cities
- Local Governments/Agencies
 - New York City Mayor's Office
 - New York City DOT
 - Philadelphia Mayor's Office
 - Boston Transportation Department
- Others/Consultants
 - Purpose
 - CRC Media
- Vehicle/EVSE OEMs
 - Beam Charging
- Local Utilities
 - Con Edison
 - New York Power Authority

PROPOSED FUTURE WORK

NYCLHVCC: Clean Cities 2011 EV Community Readiness



- Mission Electric has been developed as a platform and tool for outreach and education. We are working on shopping around the platform, to encourage more public-private partnership growth and MissionElectric.org to become a tool for additional event exposure and outreach campaigns around EVs that focus a new generation of driver's coming of age, that are not interested in owning vehicles, but regardless can be EV supporters by choosing products being delivered in EV trucks, becoming members of car-share programs that integrate EVs or taking ride's with. NYCLHVCC will continue to market all of its EV related events under the Mission Electric umbrella and seek to continue to build these necessary partnerships.
- NYCLHVCC will continue to work with the City to assist creating additional infrastructure to become EV Ready. While the City may not be prepared for on-street EV charging, there is certainly much that can be done to prepare for the future in terms of allowing for the ground work to be laid under the sidewalks and streets before an EVSE is even installed.
- Since the Study was finalized, the Mayor not only announced that 2000 of the 10,000 new parking spots would be EV Ready by 2020, but also that 1 in every 3 taxi's in NYC would be EV by 2020.

SUMMARY

NYCLHVCC: Clean Cities 2011 EV Community Readiness



- NYCLHVCC has completed a garage operator's training manual and will make the manual public, encouraging public parking garage's to use the manual as a resource for their attendants. Approximately 50 Garage Operator trainings were held, educating over 100 attendants.
- NYCLHVCC will continue, as it has done in the past to help build the necessary public-private partnerships, engage stakeholders and perform outreach and education to NYC, its residents and worker's on EV, using the Mission Electric brand.
- NYCLHVCC has developed relationships with NYC government and will continue to work closely with the City, its local utilities and private businesses to help NYC become an EV ready community. With already over 200 EVSE's and at least 1 DC fast-charger, NYC is well on its way to being a fast adopter of EVs.

